



Anything BUT overlooked: Librarians teaching scientific communication skills at the University of Florida

Donna Wrublewski

Chemistry & Biology Librarian
California Institute of Technology

Amy Buhler

Engineering Librarian
Associate Chair, Associate University Librarian

Sara Russell Gonzalez

Science & Technology Librarian

Margeaux Johnson

Science & Technology Librarian
Marston Science Library
University of Florida



- University of Florida

AAU & ARL member

One of the largest universities in the US – almost 50,000 students and over 4,000 faculty

- Marston Science Library

One of 7 libraries on campus

Consolidation of 6 smaller department libraries on campus in 1987

Serves all science & engineering disciplines

The 'French Fries' are actually a sculpture called 'Alachua', created by John Henry

<http://www.ufl.edu/about-uf/facts-and-rankings/>
<http://www.uflib.ufl.edu/msl/about/history.html>



“What I Wish I Knew When I Started Graduate School”

“These highly-nuanced topics are *frequently overlooked* by educators and students alike, although they are crucial for success in both academic and industrial research.”

Dr. Sara Russell
Gonzalez
(B.S., Caltech)





Discovering Research and Communicating Science

- One-semester 3-credit elective course offered through the UF Honors Program
- Taught 2006, 2010, **2011**, **2012**, 2013
- ~20 students, primarily freshmen

Course Overview

IDH 3931 will provide the information research skills necessary for students to succeed in STEM disciplines. The course will include guest lecturers from a variety of subjects to speak about their research, available undergraduate research opportunities, and what skills they see are essential for new graduate students. Learning in the class will be self-directed with each student selecting a scientific topic of his or her own interest for course readings, research, and writing assignments.

IDH 3931 Fall 2011 Syllabus, <http://ufdc.ufl.edu/IR00001077/00001>

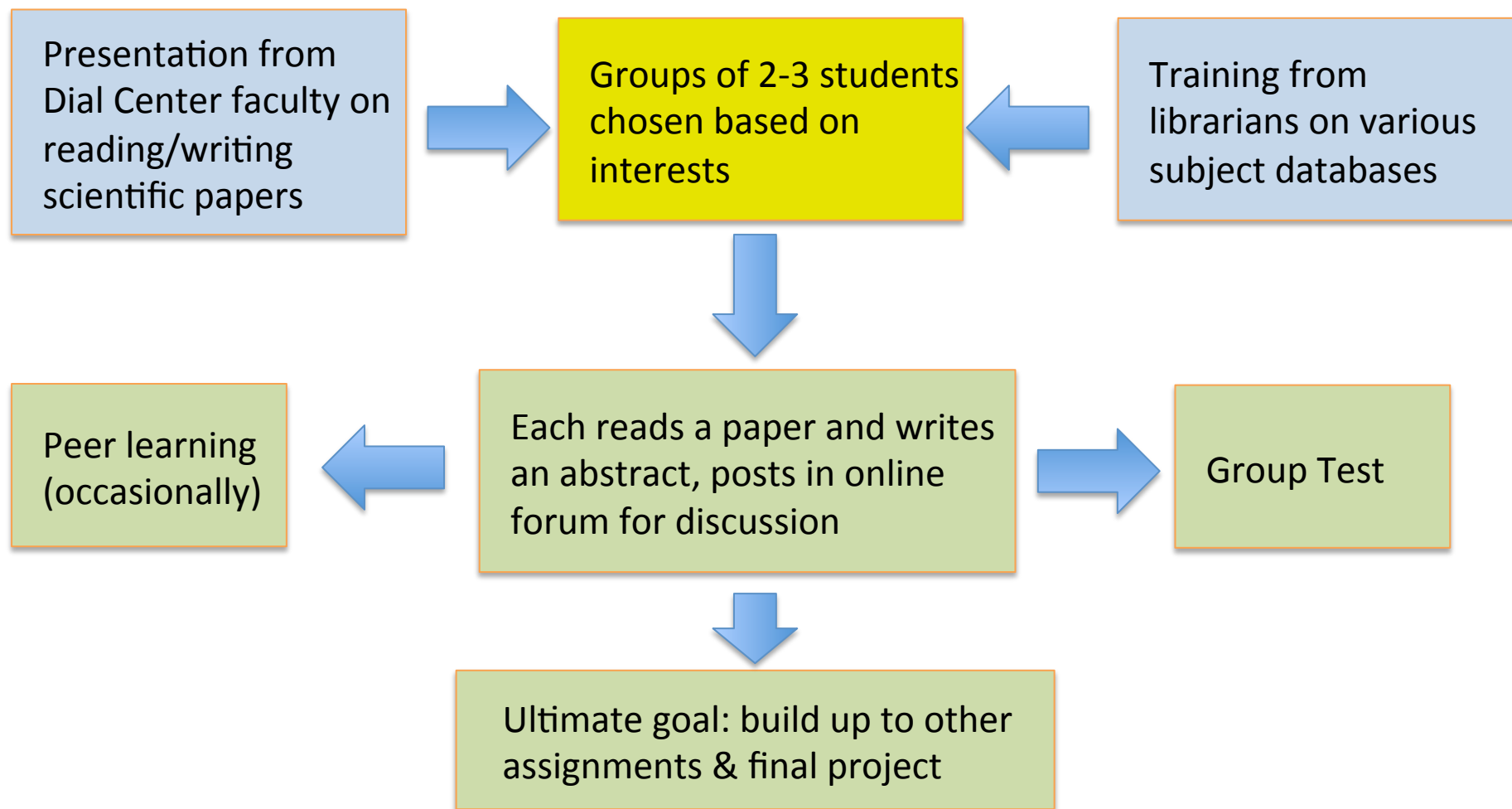


Course Outline

- Understanding the scholarly research process, including ethics and peer review
- Interacting with faculty research scientists
- Searching and evaluating scholarly literature
- Preparing different forms of scientific communication (abstracts/summaries, poster, presentation, paper)
- *Flexibility is key!*



Abstracts & Discussion Groups





Literature Searching - Quiz

- Literature searching quiz taken in groups and tailored to each group based on topics
- Students were more collegial than we expected 😊



Literature Searching - Quiz

Question 1 (2.5 points) – PubMed

1a. Using PubMed, do a MeSH search on Transmissible Spongiform Encephalopathy. What is the MeSH term that comes up? (0.25)

1b. Under this MeSH term's definition what is the disease characterized by? (1)

1c. Are there narrower terms that are listed in this MeSH term? List one. (.25)

1d. Use the MeSH Search Builder to perform a PubMed search using the MeSH term you found in 1a and cannibalism. How many results did you find? How many are in English? What is the title of article by P.P. Liberski from 2012? What group of people does this article discuss? (1)



Literature Searching - Quiz

Question 4 (2.5 points) – SciFinder

4a. Using SciFinder do an Explore References search for **antifungal for bat white nose syndrome**. Choose the reference set that contains both concepts and tell me how many articles you get after removing duplicates? (0.25 point)

4b. Find the article that talks about antifungal testing and high-throughput screening. List the five compounds (in alphabetical order) that the strain of fungus was susceptible to? (0.2 each)

4c. Do an Explore Substances search on the compound listed in part b of 4b and draw its structure here: (1 point)

4d. Looking at the substance information page, how many references are in SciFinder for the substance you drew in 4c? (0.25 point)

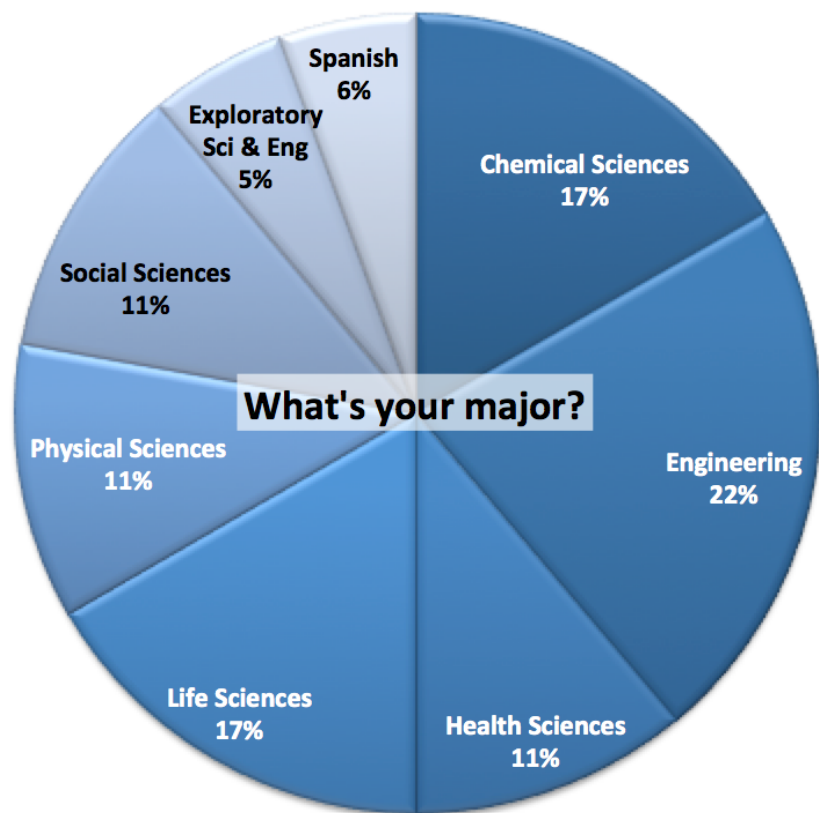


Assignments & Presentations

- Annotated bibliography
- Subject mapping poster & present in public
- Oral 10-minute presentation
- Final written research project proposal
 - 2011: NSF
 - 2012: Modified REU-type project



Evaluations (2006-11)



- Most in STEM-related disciplines
- Majority of respondents remained interested in research & STEM grad school
- Majority would recommend the class



Comments

“It was a great way to prepare me for the work I did during undergrad and beyond. **The research and critical thinking skills we developed helped me in every lab I have worked in since.**

Whether it was a research setting, classwork, and even now as I am in the work world.” - 2006



Comments

“As a current PhD candidate, I access PubMed and WoS daily. Being exposed to the technology, databases, and **how to use them efficiently as a freshman** made the transition to research and research-based undergraduate classes easier. I think I benefited the most from how to use databases/searches effectively and the information on generating a CV. Those are **topics that weren't really covered elsewhere in my education at UF.**” - 2006



Comments

“I think both of the instructors were excellent. They both were very helpful during the class, and they were very accessible outside of class as well. They did a great job of teaching and leading the class. **All of the assignments had a purpose behind them.** Overall, I thoroughly enjoyed this class.” - 2011



Branching Out

- Offered Fall 2013 at UF
- Exploring scaling up
- Elements incorporated into library instruction:
 - Relevancy: Discuss the scholarly research process and ethics early on and show why credibility is important.
 - Student-Focused: Allow students to choose their own topics – this makes assignments more personalized & relevant for research experience.
 - Stand-alone course vs. integrated?



Acknowledgements

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